

Serial No. 10/802,596
Amendment dated October 18, 2006
First Office Action dated May 18, 2006

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AMENDMENT TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

What is claimed is:

1-8. (Cancelled)

9. (Currently Amended) A method of manufacturing a thin film magnetic head comprising:

first and second magnetic layers magnetically coupled to each other and having first and second pole tip portions placed so as to face a recording medium in conjunction with being in contact with a gap layer and being opposed to each other as sandwiching the gap layer;

a thin film coil disposed in a space between the first and second magnetic layers; and
an insulating layer embedding the thin film coil in the space between the first and second magnetic layers,

wherein the method comprises:

a step of forming the gap layer with a non-magnetic conductive material; and

a step of selectively forming at least the first pole tip portion on the gap layer by growing a plating film with the gap layer used as an electrode and wherein the first magnetic layer including the first pole tip portion is formed of the plating film as a single layer.

10. (Original) A method of manufacturing a thin film magnetic head according to claim 9, further including a step of selectively etching the gap layer through ion milling by using at least the first pole tip portion as a mask and, subsequently, selectively etching the second magnetic

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layer to predetermined depth.

11. (Currently Amended) A method of manufacturing a thin film magnetic head according to claim 9, wherein ~~a material on which an etching speed through ion milling~~ an etching speed through ion milling of said non-magnetic conductive material is within a range extending from being higher than 0.5 times to being no more than 2 times of an etching speed on the second magnetic layer ~~in used as the non-magnetic conductive material.~~

12. (Currently Amended) A method of manufacturing a thin film magnetic head according to claim 10, wherein ~~a material on which an etching speed through ion milling~~ an etching speed through ion milling of said non-magnetic conductive material is within a range extending from being higher that 0.5 times to being no more than 2 times of an etching speed on the second magnetic layer ~~is used as the non-magnetic conductive material.~~

13. (Original) A method of manufacturing a thin film magnetic head according to claim 9, wherein one out of a group consisting of copper, chromium, tantalum, aluminum, gold, niobium, tungsten, ruthenium, molybdenum, beryllium, nickel copper, nickel chromium, nickel phosphorus and beryllium copper, or an alloy including at least the one out of the group is used as the non-magnetic conductive material.

14. (Original) A method of manufacturing a thin film magnetic head according to claim 10, wherein one out of a group consisting of copper, chromium, tantalum, aluminum, gold, niobium,

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tungsten, ruthenium, molybdenum, beryllium, nickel copper, nickel chromium, nickel phosphorus and beryllium copper, or an alloy including at least the one out of the group is used as the non-magnetic conductive material.

15. (Original) A method of manufacturing a thin film magnetic head according to claim 11, wherein one out of a group consisting of copper, chromium, tantalum, aluminum, gold, niobium, tungsten, ruthenium, molybdenum, beryllium, nickel copper, nickel chromium, nickel phosphorus and beryllium copper, or an alloy including at least the one out of the group is used as the non-magnetic conductive material.

16. (Original) A method of manufacturing a thin film magnetic head according to claim 12, wherein one out of a group consisting of copper, chromium, tantalum, aluminum, gold, niobium, tungsten, ruthenium, molybdenum, beryllium, nickel copper, nickel chromium, nickel phosphorus and beryllium copper, or an alloy including at least the one out of the group is used as the non-magnetic conductive material.

17-24. (Cancelled).